REMARKS

Amendment to the Abstract

The Abstract is amended as indicated by the Examiner.

Amendment to the Specification

The paragraph at page 13, lines 1 through 12 is amended to correct the informality identified by the Examiner.

Claim Amendments

Claim 1 is amended to correct informalities identified by the Examiner. Applicant believes the amendment to claim 1 overcomes any objections properly raised by the Examiner. No claims are canceled. Upon entry of the amendment, claims 1-20 are presented for reconsideration by the Examiner.

Allowable Subject Matter

Claims 1-7, 9-12, 14-16 and 18-20 are indicated as reciting patentable subject matter.

Claim Rejections 35 U.S.C. § 102 and 35 U.S.C. § 103

Claims 8 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,554,935 to Kraszewski et al. (Kraszewski) or obvious over a combination of Kraszewski and U.S. Patent No. 5,602,485 to Mayer et al (Mayer).

Claim 8 recites as follows:

> An apparatus for determining the mass of portioned units of active substances, in particular capsules, tablets or dragees, which comprises a microwave generator, a microwave resonator, a device for guiding the units of active substances through the microwave resonator, measuring and **evaluation electronics for determining the mass from the**

> **displacement A of the resonant frequency and the broadening B of the resonance curve**, and a device for removing individual units of active substances. (emphasis added)

There is an important distinction to be made between the method and apparatus of Kraszewski (U.S. 5,554,935) and the inventive device and apparatus as recited in independent claim 8. Kraszewski clearly uses the transmission amplitude of the microwaves to determine the mass or weight, according to the object of column 2, line 66 through column 3, line 1:

> It is therefore an object of the present invention to provide a method for determining mass of perturbing dielectric objects of irregular shape by measuring the shift of resonant frequency and the dissipation of energy.

According to column 4, lines 10 through 12:

> Changes in the resonant frequency and the transmission coefficient of the cavity, when loaded with an object, are the measured values, . . .

Kraszewski et al continue on column 4, line 16:

> Taking the ratio of these two measured variables a shape-independent function is developed which . . .

Further it is mentioned on column 4, lines 19 through 25:

> The process of the invention employs a measuring system that comprises a microwave resonant cavity, means for coupling the cavity to a microwave radiation or energy source, a means for passing object through the systems, and a measuring circuit allowing measurement of the transmission of microwave energy through the cavity, and a data processing unit.

These examples show that the transmission amplitude of microwaves is used to determine the mass of the objects in Kraszewski. The attenuation of the microwaves at

the peak of the resonant curve is determined. Claim 8, in contrast, employs "the displacement A of the resonant frequency and the broadening B of the resonance curve" to determine the mass of the recited "portioned units of active substances".

The width of the resonant curve and the transmission amplitude are related. However, these attributes of a resonance curve are measured in very different ways. The transmission amplitude can not be determined so exactly and in a reproducible manner as this is the case for the width of the resonant curve. Further, the transmission amplitude is influenced by the temperature and the aging of the components of the electronics and is also affected by cable resonances. It should be understood that for determining the transmission amplitude an absolute measurement has to be performed. When, however, the width of the resonant curve is determined, it is independent of the above mentioned influences. Obviously, only a relative measurement has to be performed in order to determine the half width of the resonant curve. It does not matter when the amplitude of this curve is changing due to the above mentioned problems. The half-width will not change. Therefore, a much better measurement with more accurate values can be obtained with the inventive process and apparatus.

Figure 4A of Kraszewski shows that the resonant curve gets wider when an object is introduced into the cavity. This feature, however, is not used by Kraszewski to determine the mass or weight of the object. Rather, the peak of the resonance (marked with arrows 1 and 2) is determined according to column 5, lines 32 through 38.

Therefore claim 8 is neither anticipated nor made obvious by Kraszewski et al. Claim 17 depends from claim 8 and is patentable for all the reasons claim 8.

For all the foregoing reasons, allowance of claims 1 - 20 is respectfully requested.

Respectfully submitted,

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